

TEXAS MANUFACTURING

Texas has an extraordinary manufacturing economy. The state's resources make it a natural leader in petroleum and chemical manufacturing; its research institutions have fostered computer-related and other high-tech manufacturing; and a business-friendly environment and skilled labor have helped create a burgeoning automotive manufacturing sector.

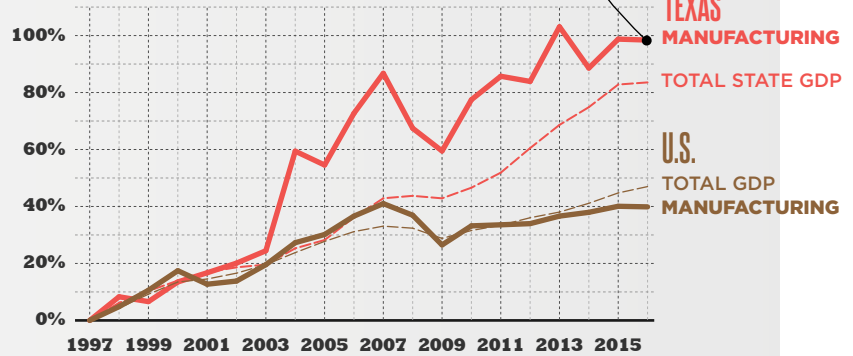
IN ALL, MANUFACTURING CONTRIBUTED \$226 BILLION TO TEXAS' GROSS DOMESTIC PRODUCT (GDP) in 2016, an amount larger than the entire economy of Portugal.



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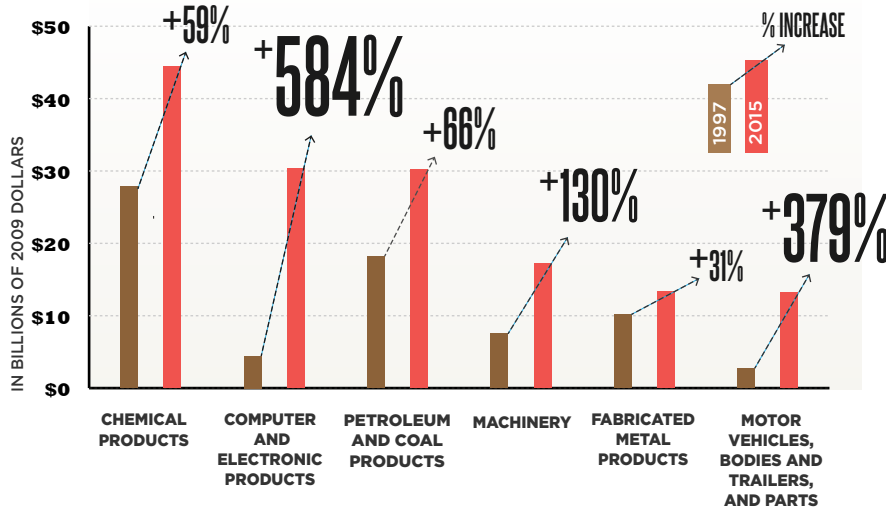
Texas Comptroller of Public Accounts

PERCENT CHANGE IN REAL GROSS DOMESTIC PRODUCT / 1997-2016



Sources: U.S. Bureau of Economic Analysis, U.S. Bureau of Labor Statistics

LARGEST MANUFACTURING SUBSECTORS IN TEXAS BY GDP: GROWTH FROM 1997 TO 2015



Sources: U.S. Bureau of Economic Analysis, Texas Comptroller of Public Accounts

TEXAS MANUFACTURING OUTPUT HAS OUTPACED THE TOTAL TEXAS ECONOMY.

TEXAS MANUFACTURING ACCOUNTED FOR 10.4 PERCENT OF U.S. MANUFACTURING GDP IN 2016.

BETWEEN 1997 AND 2016, MANUFACTURING REAL GDP INCREASED 98 PERCENT, COMPARED WITH AN 84 PERCENT GAIN ACROSS ALL TEXAS INDUSTRIES.

From 1997 through 2016, growth in Texas manufacturers' economic output more than doubled U.S. manufacturing gains of 40 percent.

Sources: U.S. Bureau of Economic Analysis, Texas Comptroller of Public Accounts

3,000,000
DIRECT & INDIRECT EMPLOYMENT

\$225.8 Billion
TEXAS MANUFACTURING GDP

\$73,738
AVERAGE ANNUAL WAGE

\$210.3 Billion
EXPORTS

While Texas' manufacturing employment has diminished as a result of automation, technological advances and other factors, its economic output has increased. From 1997 through 2016, Texas' manufacturing job count fell by 19 percent, but its real GDP rose by 98 percent. Texas has **858,000 DIRECT MANUFACTURING JOBS**, as well as another **2.2 MILLION JOBS** indirectly created or supported by manufacturers. In 2016, average annual Texas wages in manufacturing approached **\$74,000**, much higher than the statewide average of \$54,000.

To see more in-depth Texas manufacturing data, visit:

comptroller.texas.gov/economy/economic-data/manufacturing/

Sources: U.S. Bureau of Economic Analysis, Regional Economic Models, Inc., Emsi, U.S. Department of Commerce International Trade Administration

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TEXAS

PLASTICS AND RUBBER PRODUCTS MANUFACTURING

This subsector manufactures a variety of intermediate and final products by processing plastics material and raw rubber. Plastic products include plastic films, sheets, bags, pipes and pipe fittings, laminates, foam products and bottles, as well as plumbing fixtures.

Rubber products include tires, inner tubes and rubber hoses and belting. In Texas, the subsector employment rose by just one percent from 2010 to 2016, compared to a 12 percent increase nationwide.

47,600
DIRECT & INDIRECT EMPLOYMENT

\$4.9 Billion
STATE SUBSECTOR GDP

\$52,100
AVERAGE ANNUAL WAGE

\$4.8 Billion
EXPORTS

Sources: U.S. Bureau of Economic Analysis, Regional Economic Models, Inc., Emsi, U.S. Department of Commerce International Trade Administration

INDUSTRIES IN THE PLASTICS AND RUBBER PRODUCT MANUFACTURING SUBSECTOR

This subsector's share of Texas employment is 45 percent lower than its share of national employment, indicating that it is not specialized in Texas.

	DIRECT JOBS 2016	JOB CHANGE 2010-2016	AVERAGE TEXAS SALARIES 2016	LOCATION QUOTIENT 2016
	37,649	1.2%	\$52,096	0.65
PLASTICS PRODUCT	34,172	4.3%	\$51,684	0.73
RUBBER PRODUCT	3,478	-22.0%	\$56,145	0.31

Source: Emsi

Some areas in Texas, however, do have a high share of subsector employment, as measured by location quotient (LQ), a comparison of an industry's share of jobs in a specific region with its share of nationwide employment. Using this gauge, the Northwest region's concentration of employment in the subsector is nearly twice as high as in the U.S. as a whole.

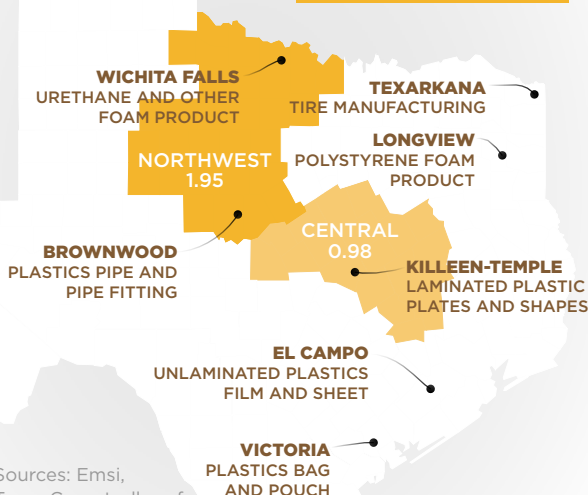
TEXAS EXPORTS IN THIS SUBSECTOR ROSE FROM \$2.6 BILLION IN 2009 TO \$4.8 BILLION IN 2016, AN 85 PERCENT GAIN. THIS INCREASE OUTPACED TOTAL TEXAS EXPORT GROWTH OF 42 PERCENT DURING THIS PERIOD.

Source: U.S. Department of Commerce International Trade Administration



REGIONAL SUBSECTOR LQs AND AREAS OF INDUSTRY SPECIALIZATION BY METRO AREA

COMPTROLLER REGIONS



Sources: Emsi, Texas Comptroller of Public Accounts

CONCLUSION

Manufacturing continues to drive output and productivity in the Texas economy, creating jobs paying well above the statewide average. It also contributes significantly to job creation in other industries, particularly in services.

The plastics and rubber products subsector remains less concentrated in Texas than in the U.S. overall. But the subsector's GDP growth in Texas has outperformed that of the U.S. subsector, and export growth since 2009 is strong, especially to Mexico.

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